

Fishery Management Report No. 15-05

Annual Management Report of the 2014 Yakutat Area Commercial Salmon Fisheries

by

Gordon F. Woods

and

Nicole L. Zeiser

February 2015

Alaska Department of Fish and Game

Divisions of Sport Fish and Commercial Fisheries



Symbols and Abbreviations

The following symbols and abbreviations, and others approved for the Système International d'Unités (SI), are used without definition in the following reports by the Divisions of Sport Fish and of Commercial Fisheries: Fishery Manuscripts, Fishery Data Series Reports, Fishery Management Reports, and Special Publications. All others, including deviations from definitions listed below, are noted in the text at first mention, as well as in the titles or footnotes of tables, and in figure or figure captions.

Weights and measures (metric)		General		Mathematics, statistics	
centimeter	cm	Alaska Administrative Code		all standard mathematical signs, symbols and abbreviations	
deciliter	dL		AAC		
gram	g	all commonly accepted abbreviations	e.g., Mr., Mrs., AM, PM, etc.	alternate hypothesis	H _A
hectare	ha			base of natural logarithm	<i>e</i>
kilogram	kg	all commonly accepted		catch per unit effort	CPUE
kilometer	km	professional titles	e.g., Dr., Ph.D., R.N., etc.	coefficient of variation	CV
liter	L			common test statistics	(F, t, χ^2 , etc.)
meter	m	at	@	confidence interval	CI
milliliter	mL	compass directions:		correlation coefficient (multiple)	R
millimeter	mm	east	E	correlation coefficient (simple)	r
Weights and measures (English)		north	N	covariance	cov
cubic feet per second	ft ³ /s	south	S	degree (angular)	°
foot	ft	west	W	degrees of freedom	df
gallon	gal	copyright	©	expected value	<i>E</i>
inch	in	corporate suffixes:		greater than	>
mile	mi	Company	Co.	greater than or equal to	≥
nautical mile	nmi	Corporation	Corp.	harvest per unit effort	HPUE
ounce	oz	Incorporated	Inc.	less than	<
pound	lb	Limited	Ltd.	less than or equal to	≤
quart	qt	District of Columbia	D.C.	logarithm (natural)	ln
yard	yd	et alii (and others)	et al.	logarithm (base 10)	log
Time and temperature		et cetera (and so forth)	etc.	logarithm (specify base)	log ₂ , etc.
day	d	exempli gratia (for example)	e.g.	minute (angular)	'
degrees Celsius	°C	Federal Information Code	FIC	not significant	NS
degrees Fahrenheit	°F	id est (that is)	i.e.	null hypothesis	H ₀
degrees kelvin	K	latitude or longitude	lat or long	percent	%
hour	h	monetary symbols (U.S.)	\$, ¢	probability	P
minute	min	months (tables and figures): first three		probability of a type I error (rejection of the null hypothesis when true)	α
second	s	letters	Jan,...,Dec	probability of a type II error (acceptance of the null hypothesis when false)	β
Physics and chemistry		registered trademark	®	second (angular)	"
all atomic symbols		trademark	™	standard deviation	SD
alternating current	AC	United States (adjective)	U.S.	standard error	SE
ampere	A	United States of America (noun)	USA	variance	
calorie	cal	U.S.C.	United States Code	population sample	Var var
direct current	DC	U.S. state	use two-letter abbreviations (e.g., AK, WA)		
hertz	Hz				
horsepower	hp				
hydrogen ion activity (negative log of)	pH				
parts per million	ppm				
parts per thousand	ppt, ‰				
volts	V				
watts	W				

FISHERY MANAGEMENT REPORT NO. 15-05

**ANNUAL MANAGEMENT REPORT OF THE 2014 YAKUTAT AREA
COMMERCIAL SALMON FISHERIES**

By
Gordon F. Woods
and
Nicole L. Zeiser
Alaska Department of Fish and Game, Division of Commercial Fisheries, Yakutat

Alaska Department of Fish and Game
Division of Sport Fish, Research and Technical Services
333 Raspberry Road, Anchorage, Alaska, 99518-1565

February 2015

The Fishery Management Reports series was established in 1989 by the Division of Sport Fish for the publication of an overview of management activities and goals in a specific geographic area, and became a joint divisional series in 2004 with the Division of Commercial Fisheries. Fishery Management Reports are intended for fishery and other technical professionals, as well as lay persons. Fishery Management Reports are available through the Alaska State Library and on the Internet: <http://www.adfg.alaska.gov/sf/publications/>. This publication has undergone regional peer review.

*Gordon F. Woods and Nicole L. Zeiser
Alaska Department of Fish and Game, Division of Commercial Fisheries,
1 Fish and Game Plaza, Yakutat, Alaska 99689 USA*

This document should be cited as:

Woods, G. F., and N. L. Zeiser. 2015. Annual Management Report of the 2014 Yakutat Area commercial salmon fisheries. Alaska Department of Fish and Game, Fishery Management Report No. 15-05, Anchorage.

The Alaska Department of Fish and Game (ADF&G) administers all programs and activities free from discrimination based on race, color, national origin, age, sex, religion, marital status, pregnancy, parenthood, or disability. The department administers all programs and activities in compliance with Title VI of the Civil Rights Act of 1964, Section 504 of the Rehabilitation Act of 1973, Title II of the Americans with Disabilities Act (ADA) of 1990, the Age Discrimination Act of 1975, and Title IX of the Education Amendments of 1972.

If you believe you have been discriminated against in any program, activity, or facility please write:

ADF&G ADA Coordinator, P.O. Box 115526, Juneau, AK 99811-5526

U.S. Fish and Wildlife Service, 4401 N. Fairfax Drive, MS 2042, Arlington, VA 22203

Office of Equal Opportunity, U.S. Department of the Interior, 1849 C Street NW MS 5230, Washington DC 20240

The department's ADA Coordinator can be reached via phone at the following numbers:

(VOICE) 907-465-6077, (Statewide Telecommunication Device for the Deaf) 1-800-478-3648,

(Juneau TDD) 907-465-3646, or (FAX) 907-465-6078

For information on alternative formats and questions on this publication, please contact:

ADF&G Division of Sport Fish, Research and Technical Services, 333 Raspberry Road, Anchorage AK 99518 (907) 267-2375

TABLE OF CONTENTS

	Page
TABLE OF CONTENTS	i
LIST OF TABLES.....	ii
LIST OF FIGURES	ii
ABSTRACT	1
INTRODUCTION.....	1
YAKUTAT AREA SUMMARY	2
Overview	2
Sockeye Salmon	2
Coho Salmon	3
Chinook Salmon	3
Pink Salmon.....	4
Chum Salmon	4
YAKUTAT DISTRICT FISHERIES	4
Alsek River.....	4
East River	5
Akwe River.....	6
Italo Rivers	6
Dangerous River	7
Situk-Ahrnklin Inlet.....	7
Lost River	10
Yakutat Bay	10
Manby Fisheries	11
Yana River To Icy Bay.....	11
YAKATAGA DISTRICT FISHERIES	12
Overview	12
Tsiu River	12
REFERENCES CITED	14
TABLES AND FIGURES.....	15

LIST OF TABLES

Table	Page
1. Yakutat salmon stock escapement goals.	16
2. Total salmon harvest by species in the Yakutat Area set gillnet fishery by fishing period, 2014.	17
3. Ten-year comparison of Yakutat Area set gillnet effort and salmon harvest, 2004–2014.	18
4. Average earnings from set gillnet fishing, Yakutat Area, 1980–2014.	19
5. Harvest of salmon in the Yakutat Area set gillnet fishery by fishing area, 2014.	20
6. Harvest of salmon in the Alsek River set gillnet fishery by fishing period, 2014.	21
7. Harvest of salmon in the Alsek River set gillnet fishery, 2014 and 5-year harvest comparison.	21
8. Klukshu River Weir escapement, 1976–2014.	22
9. Harvest of salmon in the East River set gillnet fishery by fishing period, 2014.	23
10. Harvest of salmon in the East River set gillnet fishery, 2014, and 5-year harvest comparison.	23
11. Harvest of salmon in the Akwe River set gillnet fishery, 2014, and 5-year harvest comparison.	24
12. Harvest of salmon in the Dangerous River set gillnet fishery, 2014, and 5-year harvest comparison.	24
13. Harvest of salmon in the Situk-Ahrnklin Inlet set gillnet fishery by fishing period, 2014.	25
14. Harvest of salmon in the Situk-Ahrnklin Inlet set gillnet fishery, 2014 and 5-year harvest comparison.	25
15. Exvessel value of Situk-Ahrnklin set gillnet fishery relative to the total Yakutat Area exvessel set gillnet fishery, 1975–2014.	26
16. Dollar value of salmon harvest in the Situk-Ahrnklin set gillnet fishery, 1975–2014.	27
17. Situk Weir escapement counts, 1988–2014.	28
18. Harvest of salmon in the Yakutat Bay set gillnet fishery by fishing period, 2014.	29
19. Harvest of salmon in the Yakutat Bay set gillnet fishery, 2014, and 5-year harvest comparison.	29
20. Harvest of salmon in the Manby Shore Ocean set gillnet fishery, 2014, and 5-year harvest comparison.	30
21. Harvest of salmon in the Tsiu River set gillnet fishery, 2014, and 5-year harvest comparison.	30

LIST OF FIGURES

Figure	Page
1. Yakutat Area map, showing statistical reporting areas.	31

ABSTRACT

The 2014 Yakutat set gillnet fishery harvest was approximately 300,000 salmon, 12% below the 2004–2013 average. The total harvest included 1,400 Chinook, 116,000 sockeye, 162,000 coho, 21,000 pink, and 600 chum salmon. The salmon harvest had an approximate exvessel value of \$2.1 million to 117 active permit holders. The number of active permits was equal to the recent 10-year average and made up 65% of the total set gillnet permits in Yakutat. The 2014 sockeye salmon harvest of 116,000 was slightly below average. Sockeye salmon harvests in almost all Yakutat District fisheries were below average with the exception of the Alsek and Yakutat Bay fisheries, which were above average. Biological Escapement Goals (BEG) for sockeye salmon were met in all sockeye salmon producing systems in Yakutat, with the exception of the East Alsek and Lost Rivers. The area's total coho salmon harvest of 162,000 was 27% above the recent 10-year average. The Situk-Ahrnklin River produced 75% of the total Yakutat area coho salmon harvest, with the Tsiu River as the second-largest producer. The area's Chinook salmon harvest of 1,400 was similar to the 2013 harvest and in unison with the recent 10-year average. The top Chinook salmon producers were the Alsek River and Yakutat Bay. The 2014 preseason projection of a total return of 826 Chinook salmon to the Situk River was almost double the projection for the 2013 run, although still indicative of a below-average run; and subsistence, sport, and commercial fisheries were closed for Situk River Chinook salmon. The pink salmon harvest of 21,000 fish was below the recent 10-year average. The chum salmon harvest of 600 was less than half the 10-year average. The Situk-Ahrnklin Inlet and Yakutat Bay fisheries produced most of the pink salmon, which were incidental to the sockeye salmon harvest.

Key words: Management, Annual Management Report (AMR), setnet, set gillnet, 2014 season, Chinook, sockeye, pink, chum, coho, salmon, Yakutat, Yakataga, fish ticket, Situk River, Situk-Ahrnklin Inlet, Yakutat Bay, Tsiu River, Alsek River, East River, Akwe River, Italio River, Biological Escapement Goal (BEG), Sustainable Escapement Goal (SEG), catch per unit effort (CPUE)

INTRODUCTION

The Yakutat set gillnet fisheries (Figure 1) are divided into two fishing districts: the Yakutat District, which extends from Cape Fairweather to Icy Cape, and the Yakataga District, which extends from Icy Cape to Cape Suckling. Yakutat District set gillnet fisheries primarily target sockeye and coho salmon, although all five species of salmon are harvested. The Yakataga District fisheries only target coho salmon.

Although the bulk of the Yakutat salmon harvest is usually reported from four or five major fisheries (the Alsek, Situk-Ahrnklin, and Tsiu rivers, and Yakutat Bay), upwards of 25 different areas are open to commercial fishing each year. With few exceptions, set gillnetting is confined to the intertidal area inside the mouths of the various rivers and streams, and to the ocean waters immediately adjacent to each. Due to the terminal nature of these fisheries, the department has been able to develop escapement goals for most of the major and several of the minor fisheries (Table 1).

Escapement counts performed inseason become the driving force in establishing openings, closures, and fishing times for each fishery. The fisheries are managed to ensure that escapement goals are met. In the case of glacial systems, it is often either difficult to see escapement, or escapement does not become visible until long after the fishery has occurred. Fisheries performance data, expressed as catch per unit effort (CPUE), are compared with historical data to estimate run strength for management purposes. Two ocean fisheries, the Manby Shore and the Yakutat Bay fisheries, occur within Yakutat Bay. Historical stock analysis of these fisheries indicates that the majority of sockeye salmon harvested, especially during the first six or seven weeks of the season, are of Situk-Ahrnklin origin. These fisheries are managed in accordance with Situk-Ahrnklin escapement goals.

YAKUTAT AREA SUMMARY

OVERVIEW

The 2014 Yakutat Area set gillnet fishery produced a cumulative harvest of approximately 300,000 salmon. This was 12% below the recent 10-year average (Tables 2 and 3). Of the 179 Yakutat set gillnet permits, 117 were active this season, which was equal to the recent 10-year average. The average Yakutat permit holder earned approximately \$18,300 for the 2014 season; this was 65% of the income earned in 2013, but 11% greater than the 10-year average (Table 4). Sockeye salmon harvests in the Alsek and Yakutat Bay fisheries were above average, although the East River, Akwe River, Dangerous River, and Situk-Ahrnklin Inlet fisheries were below average. The coho salmon harvest was above the recent 10-year average in 2014. The Situk-Ahrnklin Inlet accounted for 75% of the coho salmon harvest, whereas the Tsiu River accounted for 23% (Table 5). Almost all of the remote systems, although open to fishing, received little or no effort for coho salmon in 2014. A buying station was maintained on the Tsiu River for the tenth time since 2001, and approximately 38,000 coho salmon were harvested. Coho salmon accounted for 54% of the total Yakutat Area salmon harvest. The return of pink salmon to the Situk River was below average in 2014. There is little economic incentive to harvest pink salmon, so they are harvested incidentally to sockeye and coho salmon. The harvest of nearly 16,000 pink salmon in the Situk-Ahrnklin Inlet was well below the average in 2014. The chum salmon harvest in the Yakutat Area was below the recent 10-year average, and the Chinook salmon harvest of 1,400 fish matched the recent 10-year average.

SOCKEYE SALMON

The sockeye salmon harvest of 116,000 fish was slightly below the recent 10-year average of 127,000 fish. The 2014 harvest of approximately 43,000 Situk-Ahrnklin sockeye salmon was below the recent five-year average of 66,000. The Situk-Ahrnklin Inlet was the peak producer for the area and accounted for 37% of the total sockeye salmon harvest. The Situk River weir count of 102,000 sockeye salmon was well above the BEG range of 30,000–70,000. This was the second year in a row the sockeye salmon counts through the Situk River weir were above the BEG range.

The peak sockeye salmon escapement count to the East Alsek River (East River) was 9,800 fish, recorded on July 21. The peak sockeye salmon count to the Doame River was 5,500, fish seen on July 7. These two systems are counted as one watershed and share a common BEG of 13,000–26,000 sockeye salmon. The peak escapement count of 12,000 sockeye salmon in both systems on July 21 was below the BEG. Initial aerial surveys of the East and Doame rivers indicated that escapement goals would be achieved, and commercial fishing was opened to sockeye salmon harvest on July 6. The East and Doame rivers are two separate systems with genetically distinct sockeye salmon populations. Historically, Doame River sockeye salmon ran from June through early August, and East River sockeye salmon ran from late July through the end of September. The department believes that both sockeye salmon populations may be in a state of transition due to changes in hydrology and habitat within the drainage. It appears that the Doame stock is increasing in abundance and getting later in run timing. It also appears that East stocks are undergoing adaptation from age-0.3 to age-1.3 fish. The department will continue to monitor these changes and may reevaluate the spawning escapement goals in the future.

The Alsek River recorded an above average sockeye salmon run in 2014. The Alsek River set gillnet fishery harvested 33,700 sockeye; this was more than double the recent five-year average of 15,000 fish (Tables 6 and 7). Yakutat Bay, with a harvest of approximately 30,000 sockeye, accounted for 25% of the total sockeye salmon harvest. The Akwe River harvest of 1,700 sockeye salmon was well below the recent five-year average of 11,000 fish. The Dangerous River harvest of 4,000 sockeye was also below the recent five-year average of 6,000 fish. The Manby Shore fishery had minimal effort, with 1,700 sockeye salmon harvested.

COHO SALMON

The 2014 coho salmon harvest of 162,000 was 27% above the recent 10-year average of 127,000 fish. Coho salmon returns during the period 1990–2002 were the strongest in the history of the Yakutat Area. Since 2002, coho salmon production for the Yakutat Area has fallen back to historical averages. The Situk-Ahrnklin Inlet harvest of approximately 121,000 coho salmon was above the recent five-year average of 75,000 fish. The only other major coho salmon producer in Yakutat in 2014 was the Tsiu River in the Yakataga District. The presence of a buying station on the river again prompted sustained effort on the Tsiu for the tenth year in a row. The Tsiu River harvest of 38,000 coho salmon was 24% below the recent five-year average. Yakutat Bay harvest of 700 coho salmon was also below the recent average of 4,000 fish. The Akwe River harvest of 2,200 coho salmon was slightly below the five-year average. The Kaliakh River, Sudden Stream, and Yahtse and Yana rivers were not fished in 2014.

CHINOOK SALMON

With the exception of the troll fisheries, there are no directed fisheries for Chinook salmon in the Yakutat Area, and all Chinook salmon are harvested incidentally in the sockeye salmon set gillnet fisheries. The principle producers of Chinook salmon were the Situk-Ahrnklin Inlet, the Alsek River, and Yakutat Bay. The 2014 preseason projection of a total return of 826 Chinook salmon to the Situk River was almost double the 2013 preseason projection. Although this projection was an improvement over recent years, it still indicated a below-average return of Chinook salmon. As mandated by 5 AAC 30.365, *Situk Ahrnklin Inlet and Lost River King Salmon Fisheries Management Plan*, conservation measures were taken for the fourth year in a row, and the subsistence, sport, and commercial fisheries were closed to Chinook salmon in 2014. The BEG of 450-1,050 large Chinook salmon was not achieved in 2010–2012, and fishermen were not allowed to retain or sell Chinook salmon throughout those seasons. The Chinook salmon BEG was attained in 2013 for the first time since 2009 and subsistence, sport, and commercial fisheries were opened to the retention of Chinook salmon by mid-July. The 2014 Situk River weir count of 475 large Chinook salmon was within the BEG range but was achieved near the end of the run, and all fisheries for Chinook salmon remained closed through the end of the sockeye salmon season. The preseason projection for Alsek River Chinook salmon in 2014 was for an above average return and the final escapement was within the BEG range of 800–1,200 fish. The Alsek River harvest of approximately 1,100 Chinook salmon doubled the recent five-year average. A test fishery for Chinook was not conducted on the Alsek River in 2014. The Yakutat Bay harvest of 300 Chinook salmon was slightly below the recent five-year average for the Bay. The Akwe River harvest of 19 Chinook salmon was also slightly below the recent five-year average. The Alsek River and Yakutat Bay accounted for over half of all Chinook salmon harvested in the Yakutat Area. The total Yakutat Area harvest of 1,400 Chinook salmon was

right on target with the recent 10-year average. Set gillnet Chinook salmon prices were \$2.33/lb. this season, which was slightly above the recent average.

PINK SALMON

The 2014 area-wide pink salmon harvest of approximately 21,000 fish was well below the recent 10-year average of 86,000 fish and was the lowest harvest on record since 2002. The pink salmon returns to Yakutat in 2010 and 2011 were two of the largest on record. In August 2011, an estimated three million pink salmon were observed in Yakutat Bay. The three-year period since 2011 has been a reversal of fortune, with all three years recording below-average harvest levels of pink salmon. Yakutat Bay and the Situk-Ahrnklin Inlet were the top two producers for the area in 2014. The two fisheries together accounted for almost all of the pink salmon harvested in the Yakutat Area. The Situk-Ahrnklin Inlet harvest of nearly 16,000 pink salmon was well below the recent five-year average of 86,000 fish. The Yakutat Bay harvest of nearly 5,000 pink salmon was also well below the recent five-year average of 20,000 fish and the lowest harvest during that time. Pink salmon harvested in Yakutat Bay are predominantly of Situk River and Humpback Creek origin. Approximately 28,300 pink salmon passed through the Situk River weir by the time the weir was removed on August 6. The Situk River has a Sustainable Escapement Goal (SEG) of 33,000 pink salmon counted through the weir by August 5, and the goal was not attained in 2014.

CHUM SALMON

Chum salmon are a nontarget species in the Yakutat Area due to the combination of low abundance and low price, and the harvest is entirely incidental. The East River had been the only producer of chum in the Yakutat Area; however, the chum salmon run in the East River has been in decline for more than a decade, probably due to changes in habitat. In 2014, the East River fishery had a harvest of approximately 200 chum salmon which was 62% below the recent 10-year average. The areawide chum salmon harvest of 600 fish was less than half the recent 10-year average of approximately 1,300 fish. The East River and Yakutat Bay were the biggest chum producers in the Yakutat Area.

YAKUTAT DISTRICT FISHERIES

ALSEK RIVER

Alsek River salmon management is conducted in cooperation with the Canadian Department of Fisheries and Oceans under the auspices of the Pacific Salmon Commission (PSC). In February 2005, the PSC reached bilateral agreement to allow directed Chinook salmon fisheries in the Taku and Stikine Rivers to begin in early May. Agreement was not reached to open the Alsek River Chinook salmon fishery until such time as run projections improved. ADF&G was granted permission to conduct test fisheries for Chinook salmon for inseason index of run timing and abundance of Chinook salmon stocks. These test fisheries were conducted from 2005 through 2008 but were discontinued in 2009 and 2010 due to poor Chinook salmon total returns. A test fishery for Chinook salmon was implemented again in 2011 and 2012 and once again ceased in 2013. The Chinook salmon run to the Alsek River was expected to be above average in 2014, but a test fishery was not conducted. The department has adopted regulatory language concerning a directed Chinook salmon fishery on the Alsek River pending bilateral agreement by the PSC.

A total of 15 permit holders on the Alsek River harvested approximately 1,100 Chinook, 34,000 sockeye, 3 coho, 12 chum, and no pink salmon in 2014 (Tables 6 and 7). The sockeye salmon harvest more than doubled the recent five-year average of 15,000 fish (Table 7). In 2014, the Alsek was opened to commercial fishing on June 1 during statistical week 23. Traditionally, adjustments to weekly fishing periods during the sockeye salmon season rely heavily on fishery performance data; the decision to extend any given period is generally based on CPUE data gathered during that period. Parent-year escapement information is also considered when determining the weekly fishing periods. The overall Alsek drainage sockeye run was expected to be 60,000 sockeye, which was slightly below the 10-year average. During the first opening, CPUE data indicated a strong sockeye salmon run, and a one-day extension was warranted. Above-average CPUE continued during the second and third week of the season, and fishing time was extended one day in statistical week 24 and two days during statistical week 25. The peak sockeye salmon harvest occurred during statistical week 30 with ten permits fishing. By statistical week 32, fishing effort had declined, and by statistical week 33, management strategies became focused on coho salmon. Fishing time remained at three days per week for the rest of the season, and there was no effort during the last eight weeks the fishery was open. The Chinook salmon harvest of almost 1,100 fish more than doubled the recent five-year average. The majority of these fish were harvested during the first three weeks of the season.

The Klukshu River is an important tributary in the upper Alsek River drainage in Canada. The Klukshu River weir is the principal escapement monitoring tool for Alsek Chinook, sockeye, and coho salmon. New escapement goals for Alsek-Klukshu River Chinook salmon (Bernard and Jones 2010) and sockeye salmon (Eggers and Bernard 2011) were recommended and revised in 2009. Final review and approval of the escapement goals by the Transboundary River Panel and Transboundary Technical Committee was completed in February 2013.

The current analysis suggests the appropriate BEG for Klukshu River adult Chinook salmon is 800–1,200 fish. The Klukshu weir escapement of approximately 842 Chinook salmon was within the BEG (Table 8). The revised and current spawning escapement goal for Klukshu River sockeye salmon is 7,500–11,000 fish. The Klukshu River weir count of 12,377 sockeye salmon exceeded the BEG and was above the recent 10-year average of approximately 11,000 sockeye salmon (Table 8). Aerial escapement surveys of sockeye salmon are typically conducted on the Tanis River and Cabin and Basin Creeks. Due to lack of airplane pilots in Yakutat, these systems have not been surveyed for several years and were not surveyed in 2014.

Effort levels in the Alsek generally plummet during coho salmon season, and less than three permits were fished this season. The Alsek remained open through the second week in October, and the river was not fished during the last eight weeks of the season. Inclement weather during the fall makes it very difficult to obtain accurate escapement counts in local tributaries. The Klukshu weir escapement of 341 coho salmon was well below the recent 10-year average of just under 2,000 fish. The weir is usually removed prior to the completion of the coho salmon return and does not include fish that migrate after mid-October.

EAST RIVER

The East River has undergone major geological changes over the past several decades that have forced salmon stocks to adapt to their new environment. In the 1970s and 1980s the East River was the peak sockeye salmon producer in Yakutat. This is no longer true; salmon production in the East River now fluctuates from year to year. Historically, the East River commercial set

gillnet fishery has opened after a minimum escapement count of 13,000 sockeye salmon have been observed. In 2014, surveys indicated strong sockeye salmon returns, and the department opened the river to commercial fishing on July 6 for 24 hours. Fishing periods remained at one day for the next three weeks of the sockeye season with only 4 or fewer permits fished. From statistical week 33 through the rest of the season, fishing time was three days. There was minimal effort during the coho salmon season and catch was negligible. The East River was not fished during the last six weeks of the season. A total of ten permits harvested approximately 3,000 sockeye salmon in 2014 (Tables 9 and 10). The East River harvest of 200 chum salmon was below the recent five-year average. Although the East River is considered the only consistent producer of chum salmon in the Yakutat Area, chum salmon are not targeted due to transportation costs. Pink salmon are also a nontargeted species, and the harvest was negligible. The peak escapement count of 12,000 sockeye salmon was recorded on July 21, just below the BEG range of 13,000–26,000 fish. The East River was not surveyed for coho salmon in 2014 due to the lack of available pilots in the Yakutat Area at that time.

AKWE RIVER

The 2014 Akwe River harvest of 1,700 sockeye salmon was 85% below the recent five-year average of approximately 11,300 fish (Table 11). Even with above-average fishing effort, the harvest was the lowest on record for that time period. The Akwe River commercial set gillnet fishery opened on the fourth Sunday in June and was fished for sockeye salmon during the first seven weeks of the season. A peak aerial survey count of approximately 500 sockeye salmon was below the BEG range of 600–1,500 fish. During the coho salmon season, there was no fishing effort during the first three weeks, but effort increased in statistical week 37. The Akwe River harvest of 2,200 coho salmon was near the average of 2,400 fish. Historically, aerial surveys of the Akwe River have been of little value in determining escapement due to the turbidity of the river. The dramatic retreat of Chamberlain Glacier, which feeds Akwe Lake, has improved water clarity and visibility in the river, and aerial surveys have become more effective in recent years. No aerial surveys were conducted for coho salmon in 2014 due to lack of pilots during that time. Weekly fishing times are initially announced at 1.5 days and then adjusted inseason according to fishery performance. Fishing periods remained at 1.5 days throughout the sockeye season, and then increased to 2 days during the first four weeks of the coho salmon season. In statistical weeks 37–40, fishing time was extended to 3 days, then extended again to 4 days during the last week of the commercial salmon fishing season.

ITALIO RIVERS

Three rivers make up the Italio River system: the Old, Middle, and New Italio rivers. The Old Italio River has always been a separate river flowing into the Gulf of Alaska just east of the mouth of the Dangerous River. Geological changes in the mid-1980s changed the Italio River and created two distinct rivers where only one had existed before. The main river is now called the New Italio, and the original river channel is the Middle Italio. All three systems support coho salmon populations, and the New Italio River also has a small run of sockeye salmon. With the decline in sockeye salmon production, the New Italio has not been opened to commercial fishing since 1987. Aerial surveys are conducted and peak counts of no more than 1,500 sockeye salmon are usually recorded. In 2011, a peak aerial survey of 6,000 sockeye salmon was recorded on August 17. That was the highest sockeye salmon count in over 20 years and is still currently the highest count on record. The New Italio River sockeye salmon run appears to be rebuilding. In

2012 the U.S. Forest Service installed a fish weir above Italio Falls, which is located just below Italio Lake. The weir was equipped with mini-DVR fish counting systems utilizing motion-detection video. The project results confirmed over 4,000 sockeye salmon escaped into the lake in 2012. The U.S. Forest Service continued the project in 2013 and 2014 with peak weir counts of 5,862 and 3,801 respectively. These projects along with the department's aerial surveys are helpful tools used to monitor the recovering Italio River sockeye salmon stocks. The Italio River has an established BEG for coho salmon of 1,400–3,600 fish. No late fall surveys were conducted in 2014 due to lack of aerial transportation and inclement weather. The Italio rivers (Old, Middle, and New) were not open to commercial fishing for coho in 2014.

DANGEROUS RIVER

The Dangerous River was opened to commercial fishing on the second Sunday in June. A total of five permits fished the Dangerous River in 2014 and 3,800 sockeye salmon were harvested (Table 12). The sockeye salmon harvest was 36% below the five-year average of 6,000 fish. Escapement surveys of the Dangerous River are ineffective due to the glacially occluded water. Weekly fishing times are announced at 2.5 days by regulation and then adjusted in accordance with fishery performance. Although there was minimal fishing effort, harvest figures indicated a strong sockeye run, and extra fishing times were warranted. During the 2014 coho salmon season fishing time remained at 3.0 days throughout, but the Dangerous River was not commercially fished for coho salmon.

SITUK-AHRNKLIN INLET

The Situk-Ahrnklin Inlet commercial set gillnet fishery recorded below-average harvests for all species during the 2014 season with the exception of coho salmon (Tables 13 and 14). The Situk-Ahrnklin Inlet generated 59% of the Yakutat Area set gillnet income (Tables 15 and 16). The total fishery value of approximately \$1.3 million equaled the five-year average and was 18% above the historical 10-year average of \$1.1 million. The harvest of nearly 43,000 sockeye salmon was also below the recent average. Situk-Ahrnklin sockeye accounted for 37% of the area's total sockeye salmon harvest. The coho salmon harvest of approximately 121,000 fish was well above the 5-year average of 75,000 fish and accounted for 75% of the Yakutat Area's total coho salmon harvest. The harvest of nearly 16,000 pink salmon was well below the recent five-year average but accounted for 76% of the total Yakutat Area pink salmon harvest.

The Situk River weir was installed in the lower river for the 27th consecutive year and used for inseason management of the sockeye and Chinook salmon commercial fisheries (Table 17). This was the 20th year that the resistance board or "floating" weir was used. Heavy rains and subsequent flooding are typical of the fall coho season, and the weir is not maintained during the coho salmon run.

Prior to the start of the season, the Division of Sport Fish announced a preseason projection of a total return of 826 large (ocean-age-3 and older) Chinook salmon to the Situk River in 2014, with a range of 334-1,278 fish. The 2014 estimate was an improvement over recent years, doubling the 2013 forecast. Under the terms of 5 AAC 30.365, *Situk-Ahrnklin Inlet and Lost River King Salmon Fisheries Management Plan*, if the projected escapement is greater than 730 large Chinook salmon and less than 1,050 fish, the department shall manage the commercial set gillnet fisheries in the Situk-Ahrnklin Inlet and Lost River based on the sockeye salmon run strength. The preseason projection is for total return and does not factor in any harvest of fish

below the Situk River weir. Sockeye and Chinook salmon run timing in the Situk-Ahrnklin Inlet is virtually identical. In order to provide for a commercial fishery for sockeye salmon and still attain escapement objectives for Chinook salmon, conservation measures for Chinook salmon were implemented for the fourth year in a row.

In 2011, Yakutat Area ADF&G staff attended meetings with the Yakutat Tlingit Tribe and with the City and Borough of Yakutat, to outline a plan that would allow commercial fishing for sockeye salmon while at the same time calling for stringent conservation measures for Chinook salmon. The plan appeared to be successful and was implemented again in both 2012 and 2013 with success. In 2013, the BEG for large Chinook salmon was reached for the first time since 2009, and the restrictions were lifted inseason. In 2014, conservative subsistence, commercial, and sport fishery management measures were once again implemented in order to protect Chinook salmon stocks in the Situk Inlet while providing fishing opportunities for sockeye salmon. The subsistence fishery for Chinook salmon was closed effective May 18, and the retention and sale of Chinook salmon in the Situk-Ahrnklin Inlet was prohibited when the sockeye salmon fishery opened on the third Sunday in June. The lower end of the BEG was attained, with a final weir count of 475 large Chinook salmon recorded by the end of the season. Conservation restrictions remained in effect through the end of the Chinook salmon run in 2014. The plan as outlined contained three important provisions for Chinook salmon conservation:

1. There are three markers located where the Situk River enters the Inlet that delineate fresh river water at mean low tide, upstream of which are closed waters. Approximately 75% of Chinook salmon taken in the commercial fishery came from the nets in open waters immediately adjacent to the markers. The markers were moved farther out to eliminate those sets, tripling the area of closed waters. When conservation measures were no longer needed, the markers were returned to their normal placement.
2. Prior to 2012, 5 AAC 30.365 contained a “non-sale” provision under certain scenarios of low Chinook salmon abundance. At the BOF meeting in February 2012, the regulation was changed from “non-sale” to “non-retention.” In other words, all Chinook salmon in the nets would be returned to the water immediately. To address a concern about the potential waste of salmon from net mortalities, dead Chinook salmon would be turned in to a buyer at the time of sockeye salmon sale for distribution to elderly, legally blind, or 70% disabled members of the community.
3. Finally, it was recognized that ADF&G did not have regulatory authority to require permit holders to closely attend gear while fishing; therefore, the close attendance of gear would have to be voluntary. The department would closely monitor the fishery to see if this experimental plan was effective. If it became clear that too many Chinook salmon were being killed, the only alternative would be to close the commercial sockeye salmon fishery for the season. For this plan to work there must be a cooperative effort among all the parties: the department, the community, and the permit holders.

The Situk-Ahrnklin Inlet fishery opened by regulation on the third Sunday in June, and the fishing period remained at 2.5 days throughout most of the sockeye season. For the initial opening, 45 permits harvested nearly 5,000 sockeye salmon, which was substantially less than the first opening in 2013. The peak harvest occurred during statistical week 27 with 44 permits harvesting over 7,000 sockeye salmon. The total Situk-Ahrnklin Inlet harvest of nearly 43,000 sockeye salmon was 35% below the five-year average. An estimated 102,300 sockeye salmon

passed through the Situk River weir in 2014. This exceeded the BEG range of 30,000–70,000 fish and was the fifth highest escapement count on record. A total of 475 large Chinook salmon passed the weir in 2014. Although this was approximately half of what was projected, it was within the BEG range of 450–1,050 large Chinook salmon. During the “non-retention” period, a total of 27 dead Chinook salmon were retained from nets to be distributed to the Yakutat Senior Center.

The harvest of 121,400 coho salmon was 62% above the recent five-year average of 75,000 fish. The 14-year period from 1992 to 2005 was the most productive in the history of the Situk-Ahrnklin Inlet coho salmon fishery. Ten of the fourteen years recorded a harvest of over 100,000 fish, and seven of them recorded harvests of over 150,000 fish. There has been a downturn in harvest levels since 2003, although it does appear stocks are rebuilding. The 2013 harvest of 107,000 coho salmon was well above the recent five-year average and was the highest harvest during that time. The 2014 coho salmon harvest surpassed last year’s harvest and is the highest harvest on record since 2004. The long-term historical record yields a different perspective. During the period 1961–1991, the average coho salmon harvest in the Situk-Ahrnklin Inlet fishery was 31,500, and only four of those years produced a harvest of over 50,000 coho salmon. Although escapement survey conditions were poor throughout most of the 2014 season, a peak Situk River escapement survey of approximately 8,200 coho salmon was recorded on September 5. This approached the upper end of the BEG range of 3,300–9,800 fish. The commercial fishing period varied between three to five days throughout the coho salmon season. A peak count of 66 permits fished during the second week of September, and this effort was above average for recent coho salmon seasons. This year continues the recent reversal of historical effort patterns. Prior to 2000, peak effort levels in the Situk-Ahrnklin Inlet were recorded during the sockeye salmon season, when as many as 90 permits fished the Inlet. Effort then dropped to about 50 permits during the fall when some effort shifted to some of the more remote coho salmon systems. Now, more effort is remaining in Yakutat Bay during the sockeye salmon season. With economic considerations limiting participation in more remote coho salmon fisheries, effort levels have increased in the Inlet during the fall.

The pink salmon harvest of nearly 16,000 was well below the recent five-year average of approximately 86,000 fish. The peak of the pink return occurs between the end of the sockeye season and the onset of the coho salmon season. Effort levels diminish during this time because fewer permits are willing to fish for pink salmon because of the comparatively low price. In 2014 the pink salmon price was \$0.33 per pound, and that was two cents more than in 2013. Harvests of Situk River pink salmon increased in the past two decades, from an average of 12,000 prior to 1990, to 34,000 in the 1990s, and to 80,000 in the 2000s. From 2001 to 2011, the Situk River harvest accounted for an average of 82% of the Yakutat Area pink salmon harvest. Pink salmon estimates of greater than 500,000 fish obtained during boat surveys of the Situk River in 2005, 2007, and 2010 also suggest pink salmon returns have been at their highest levels since statehood. However, the 2012 pink salmon return to the Situk River plummeted and was the lowest harvest in the previous seven years. Although Southeast Alaska set a record for pink salmon harvest in 2013, this was not the case for the Yakutat Area. The 2014 pink salmon harvest was again well below average and now stands as the lowest harvest on record since 2002. The chum salmon harvest of 125 fish was 53% below the recent five-year average.

Escapement estimates of Situk River pink salmon have been assessed by weir or boat survey counts since 1991; however, the weir is usually removed in early August, well before the peak of

the pink salmon run. In addition, peak annual survey counts are not conducted every year due to poor river conditions and/or lack of personnel. Given uncertainties regarding total escapements, the escapement goal was reevaluated and based on a more stable index of escapement (Piston and Heintz 2011). The new escapement goal is a lower-bound SEG of 33,000 pink salmon counted at the weir through August 5. In 2014, 28,300 pink salmon were counted through the weir prior to its removal, which was below the escapement goal. No late fall surveys were conducted this year due to high water and poor visibility.

LOST RIVER

There has not been a directed fishery on sockeye salmon in the Lost River since 1998, and the last directed fishery for coho salmon in the Lost River took place in 2004. In 1999 the westward migration of the mouth of the Situk-Ahrnklin Inlet overlapped the mouth of the Lost River, and the Lost River has discharged into the Inlet ever since. Beginning in the 1999 season, regulatory markers have been placed in the Situk-Ahrnklin estuary to delineate areas closing the Lost River to commercial fishing. This closure forced the displacement of some traditional fishing sites, and many of these fishermen have elected to relocate their operations to either the Situk-Ahrnklin Inlet or Yakutat Bay.

The Lost River was not opened to commercial set gillnetting in 2014. The peak sockeye salmon escapement count of 300 fish did not meet the lower-bound SEG of 1,000 fish for the Lost River. This was the third year in a row the SEG was not attained. The peak coho salmon escapement count of approximately 3,555 was above the lower-bound SEG of 2,000 fish. Historically, escapement surveys have been conducted in Tawah and Ophir creeks, along with various drainage ditches that are tributaries to the Lost River. Inconsistent surveys have been recorded over the years, and the department recognized that a more systematic approach was needed. In 2014, all surveys for coho and sockeye salmon were counted from Summit Lake to the Lost River Bridge. Sufficient surveys were conducted during the fall this year, although inclement weather and flood events did occur. It is assumed that Lost River salmon stocks are harvested in the Situk-Ahrnklin fishery. The lower end of the Situk-Ahrnklin estuary appears highly mutable, and the conservation measures enacted from 1999 to 2014 will continue to be necessary in the future.

YAKUTAT BAY

The Yakutat Bay fishery opened on the second Sunday in June, and fishing time remained at 2.5 days per week for the first seven weeks of the sockeye season. Fishing time was extended to 4 and 4.5 days per week during the last two weeks of the sockeye season. Yakutat Bay yielded harvests of nearly 300 Chinook, 30,000 sockeye, 700 coho, 4,600 pink and 200 chum salmon in 2014 (Table 18). The sockeye salmon harvest was 36% above the recent five-year average (Table 19). In 2014, the Yakutat Bay fishery was the third highest sockeye salmon producer in the area. A total of 41 permits fished in Yakutat Bay, with a peak effort of 31 permits fishing during the first week of the season. Chinook salmon are harvested incidentally in the sockeye salmon fishery, and the harvest of almost 300 Chinook salmon was slightly below the recent 5-year average.

Yakutat Bay has never produced high coho salmon harvests, perhaps due to the concentration of effort elsewhere during coho salmon season. The 2014 coho salmon harvest of 4,600 fish was 81% below the recent five-year average and was the lowest harvest during that time. Effort levels

always remain low in Yakutat Bay for coho salmon, and only twelve permits fished the Bay during the first week of the coho salmon season.

The Yakutat Bay pink salmon harvest of 4,600 fish was 77% below the recent five-year average of 20,000 fish and was the lowest pink salmon harvest in the Bay during that time period. Pink salmon have not been targeted in Yakutat Bay in recent years due to the decline of the Humpback Creek fishery. The Bay had the highest historical return of pink salmon in 2011, with an estimated three million pink salmon within the Bay. Pink salmon were targeted in 2011, but permit holders claimed that a 75-fathom set gillnet was extremely inefficient gear for pink salmon. Systematic surveys to estimate spawning escapement into Humpback Creek have not been conducted since the mid-1990s, because there has not been a directed fishery on Humpback Creek pink salmon stocks since 1996 (Woods 2003). In 2005, the escapement goal for Humpback Creek was eliminated due to lack of fishing effort on the stock (Heinl and Geiger 2005).

MANBY FISHERIES

The Manby Shore ocean fishery is located along the western shore of Yakutat Bay. This fishery harvests stocks that are destined for the Situk River and the Manby Shore streams. Historical data is difficult to interpret because, prior to the mid-1980s, harvests from the ocean fishery were combined with harvests from the area's inside waters. Also, before 1950, all the Manby Shore and Manby streams harvests were recorded with those from Yakutat Bay. It is likely that the ocean fishery for sockeye developed in 1977 because fairly consistent sockeye salmon harvests begin to appear in the record at that time. Weekly fishing periods are usually adjusted according to Situk River escapement needs. The Manby Shore fishery opened on the third Sunday of June but was not fished. Fewer than three permits fished five of the eight total weeks. The harvest of 1,700 sockeye salmon was well below the recent five-year average of approximately 6,000 fish (Table 20). The harvest of 14 Chinook salmon was also below the recent average. The Manby Shore ocean fishery was not fished for coho in 2014.

The Manby Shore stream fisheries include the waters of Manby Stream, Sudden Stream, Spoon River, and Esker Creek. The fishing history of these systems is imprecise because only some, or even none, may be fished in any given year. Sudden and Manby Streams produce both sockeye and coho, whereas the Esker Creek and Spoon River fisheries target only coho salmon. In 2014 fewer than three permits fished Manby Stream for sockeye salmon and harvest records are confidential. Sudden Stream, Spoon River, and Esker Creek were not fished in 2014. Escapement counts are limited due to the glacial nature of most Manby area streams, and no surveys of these inside waters were conducted in 2014. Escapement goals have not been formulated for the inside waters along the Manby Shore.

YANA RIVER TO ICY BAY

Neither the Yana nor the Yahtse Rivers were fished in 2014. No aerial surveys of these systems were conducted due lack of aerial transportation and budget constraints.

YAKATAGA DISTRICT FISHERIES

OVERVIEW

The Yakataga District opened on August 1, 2014. The Tsiu River sustained a normal commercial fishery for the tenth year in a row. The Kaliakh River, Tashalich River, Eight Mile Creek, and the Seal River were open but not fished in 2014.

TSIU RIVER

The Tsiu River is home to a productive coho salmon run during a 6–8-week window from August to early October. The Tsiu River is remote from processors, and whole fish have been transported 100 miles from the site by air taxi back to Yakutat. In 2014, Yakutat Seafoods maintained a buying station on the Tsiu River and flew fish to Yakutat with two single-turbine Otters. In recent history, fish have been flown to Yakutat in a DC-3 and several other types of small fixed-wing aircraft. This marked the tenth time since 2001 that a processor maintained a presence on the Tsiu River. A total of nine permits fished on the Tsiu River in 2014, which was below the recent 5-year average of 15 permits. The harvest of nearly 38,000 coho salmon was 24% below the recent five-year average of 49,000 fish (Table 21).

In 2014 the Tsiu River presented a learning curve to both industry and department staff due to geophysical changes in the river itself. During the preceding year, the river mouth broke through the sand spit to the west and shortened the river by about two miles. One major and two minor overflow channels from the Tsivat River had cut across the sand flats inland of the Tsiu River, and the major overflow channel appeared to be the new migration route for coho salmon. This new confluence of the Tsiu and Tsivat rivers is approximately one half mile downstream of the regulatory markers located near the Yakutat Seafoods buying station, one half mile below Duck Camp Island. Those regulatory markers have been left behind because salmon are now turning right into the Tsivat well before they ever get to those markers.

An aerial survey on August 22 revealed about 2,500 fish below the new confluence, with another 8,000 fish holding in a large pool in the Tsiu River just upstream from the confluence. On the same day, the markers were moved downstream to just above the confluence to protect the 8,000 fish holding in that pool. A second set of markers was placed approximately 1,000 yards upstream of the confluence in the Tsivat overflow channel.

The Tsiu River opened initially on August 24. The river was fished two 24-hour periods the first week with catches promising a strong coho run. Two 24-hour periods were announced for the second week and fishing time was extended to a third day because an aerial survey revealed the lower bound of the BEG had been reached. The third week was opened by regulation, but storm conditions caused the runway to flood, and fishing was halted because the product couldn't get flown to market. The river was finally fished again for two 24-hour periods the week of September 8 with reasonable harvests. By mid-September, gale-force winds and more flooding persisted for a solid week, and Yakutat Seafoods shut down their buying operation on the Tsiu River for the year. An aerial survey revealed a peak escapement count of over 27,000 coho salmon on September 21, near the upper end of the BEG range of 10,000–29,000 fish. Fishing effort declined by the end of September, and the Tsiu River was open but not fished the last 4 weeks of the coho salmon season.

The regulatory markers as defined in regulation for the Tsiu River no longer pertain to the situation on the ground. They will need to be placed each year by Emergency Order for the next three years, until the 2018 Board of Fish cycle. At that time it is recommended that a proposal be submitted to the Board giving the department responsibility for marker placement each year due to the ever-changing conditions on the Tsiu River.

REFERENCES CITED

- Bernard, D. R., and E. L. Jones. 2010. Optimum escapement goals for Chinook salmon in the transboundary Alsek River. Alaska Department of Fish and Game, Fishery Manuscript Series No. 10-02, Anchorage.
- Clark, J. H., A. Burkholder, and J. E. Clark. 1995a. Biological escapement goals for five sockeye salmon stocks returning to streams in the Yakutat Area of Alaska. Alaska Department of Fish and Game, Commercial Fisheries Management and Development Division, Regional Information Report 1J95-16, Juneau.
- Clark, J. H., and J. E. Clark. 1994. Escapement goals for Yakutat area coho salmon stocks. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report 1J94-14, Douglas.
- Clark, J. H., and P. Etherton. 2000. Biological escapement goal for Klukshu River system sockeye salmon. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report 1J00-24, Juneau.
- Clark, J. H., S. A. McPherson, and A. Burkholder. 1995b. Biological escapement goal for Situk River sockeye salmon. Alaska Department of Fish and Game, Commercial Fisheries Management and Development Division, Regional Information Report 1J95-22, Juneau.
- Clark, J. H., G. F. Woods, and S. Fleischman. 2003. Revised biological escapement goal for the sockeye salmon stock returning to the East Alsek-Doame river system of Yakutat, Alaska. Alaska Department of Fish and Game, Special Publication Series No. 03-04, Anchorage.
- Eggers, D. M., and D. R. Bernard. 2011. Run reconstruction and escapement goals for Alsek River sockeye salmon. Alaska Department of Fish and Game, Fishery Manuscript Series No. 11-01, Anchorage.
- Heinl, S. C., and H. J. Geiger. 2005. Pink salmon stock status and escapement goals in Southeast Alaska and Yakutat [In] J. A. Der Hovanisian and H. J. Geiger, editors. Stock status and escapement goals for salmon stocks in Southeast Alaska 2005. Alaska Department of Fish and Game, Special Publication No. 05-22 Chapter 4, Anchorage.
- McPherson, S., D. Bernard, J. H. Clark, K. Pahlke, E. Jones, J. A. Der Hovanisian, J. Weller, and R. Ericksen. 2003. Stock status and escapement goals for Chinook salmon stocks in Southeast Alaska. Alaska Department of Fish and Game, Special Publication No. 03-01, Anchorage.
- McPherson, S. A., P. Etherton, and J. H. Clark. 1998. Biological escapement goal for Klukshu River Chinook salmon. Alaska Department of Fish and Game, Fishery Manuscript No. 98-2, Anchorage.
- Piston, A. W., and S. C. Heinl. 2011. Pink salmon stock status and escapement goals in Southeast Alaska. Alaska Department of Fish and Game, Special Publication No. 11-18, Anchorage.
- Woods, G. F. 2003. Yakutat set gillnet fishery 2003 management plan. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report 1J03-21, Juneau.

TABLES AND FIGURES

Table 1.–Yakutat salmon stock escapement goals.

Species	System	Range	Year Established
Chinook	Klukshu River (Alsek River)	800–1,200	2011
	Alsek River (total)	3,500–5,300	2011
	Situk River	450–1,050	2003
Sockeye	East Alsek-Doame River	13,000–26,000	2003
	Klukshu River	7,500–11,000	2011
	Lost River	1,000	2009
	Situk River	30,000–70,000	2003
Coho	Lost River	2,200	1994
	Situk River	3,300–9,800	1994
	Tsiu/Tsivat Rivers	10,000–29,000	1994
Pink	Situk River*	33,000	2011

Note: The Lost River sockeye and coho salmon and Situk River pink salmon escapement goals are considered SEGs.

* The escapement goal is for 33,000 pink salmon through the weir by August 5.

Table 2.–Total salmon harvest by species in the Yakutat Area set gillnet fishery by fishing period, 2014.

Week	Ending Date	Chinook	Sockeye	Coho	Pink	Chum	Total
23	7-Jun	363	2,517	0	0	0	2,880
24	14-Jun	397	9,632	3	0	32	10,064
25	21-Jun	351	14,095	2	0	10	14,458
26	28-Jun	99	9,723	2	0	31	9,855
27	5-Jul	83	17,949	11	10	19	18,072
28	12-Jul	42	11,640	23	40	35	11,780
29	19-Jul	43	11,630	39	390	16	12,118
30	26-Jul	10	16,039	21	2,341	49	18,460
31	2-Aug	4	13,060	272	7,483	85	20,904
32	09-Aug	2	6,007	1,207	4,341	235	11,792
33	16-Aug	2	1,734	2,102	2,506	39	6,383
34	23-Aug	2	1,579	4,885	2,919	14	9,399
35	30-Aug	2	727	23,266	683	33	24,711
36	6-Sep	3	87	52,861	20	11	52,982
37	13-Sep	0	10	30,596	0	5	30,611
38	20-Sep	0	3	27,104	0	3	27,110
39	27-Sep	0	0	9,754	0	3	9,757
40	4-Oct	0	3	9,025	0	1	9,029
41	11-Oct	0	0	804	0	0	804
Totals		1,414	116,424	161,977	20,733	621	301,169

Table 3.–Ten-year comparison of Yakutat Area set gillnet effort and salmon harvest, 2004–2014.

Year	Active Permits	Chinook	Sockeye	Coho	Pink	Chum	Total
2004	112	2,734	88,282	196,930	23,207	1,555	312,708
2005	115	1,140	79,443	82,887	60,436	525	224,431
2006	105	1,330	138,734	86,085	88,864	1,225	316,238
2007	120	1,879	236,869	76,550	87,997	2,782	406,077
2008	129	1,309	35,282	153,712	65,227	546	256,076
2009	123	1,533	105,825	133,808	76,956	871	318,993
2010	128	501	122,020	161,584	160,470	1,239	445,814
2011	122	1,123	167,704	126,215	205,261	900	501,203
2012	113	942	124,780	98,677	27,343	2,162	253,904
2013	107	1,401	168,356	158,046	67,344	1,428	396,575
2014	117	1,414	116,424	161,977	20,733	621	301,169
2004–2013 Average	117	1,389	126,730	127,449	86,311	1,323	343,202
2014 ^a		1%	-8%	+27%	-76%	-53%	-12%

^a Percentage deviation from 10-year average.

Table 4.—Average earnings from set gillnet fishing, Yakutat Area, 1980–2014.

Year	Yakutat Setnet Income	Active Setnet Permits	Average Earning Per Permit	Previous 10-Year Avg. Income
1980	\$1,929,752	150	\$12,865	-
1981	\$2,333,300	152	\$15,351	-
1982	\$2,084,140	149	\$13,988	-
1983	\$1,355,470	131	\$10,347	-
1984	\$2,375,790	137	\$17,342	-
1985	\$3,010,580	149	\$20,225	\$13,944
1986	\$1,981,807	153	\$12,953	\$15,283
1987	\$5,077,589	155	\$32,759	\$15,607
1988	\$8,944,228	160	\$55,901	\$17,302
1989	\$4,174,510	164	\$25,454	\$21,124
1990	\$4,493,681	161	\$27,911	\$22,018
1991	\$2,248,558	162	\$13,880	\$23,223
1992	\$5,238,058	165	\$31,745	\$23,076
1993	\$2,916,782	158	\$18,461	\$23,852
1994	\$3,331,851	151	\$22,065	\$25,663
1995	\$2,968,274	148	\$20,055	\$26,135
1996	\$2,375,047	140	\$16,925	\$26,118
1997	\$2,975,854	142	\$20,957	\$26,516
1998	\$1,350,752	144	\$9,380	\$25,335
1999	\$1,960,794	129	\$15,200	\$24,306
2000	\$1,478,049	125	\$11,824	\$23,171
2001	\$1,130,969	115	\$9,830	\$18,044
2002	\$747,218	88	\$8,491	\$17,636
2003	\$1,135,551	104	\$10,919	\$15,319
2004	\$1,606,082	112	\$14,340	\$14,565
2005	\$911,193	115	\$7,923	\$13,792
2006	\$1,695,830	105	\$16,150	\$12,579
2007	\$2,479,100	120	\$20,659	\$12,501
2008	\$1,693,845	129	\$13,131	\$12,472
2009	\$1,640,016	123	\$13,333	\$12,847
2010	\$2,185,611	128	\$17,075	\$12,660
2011	\$2,382,763	122	\$19,531	\$16,112
2012	\$1,496,399	113	\$13,242	\$17,644
2013	\$3,025,915	107	\$28,280	\$15,319
2014	\$2,141,760	117	\$18,306	\$14,565
2004–2013 Average	\$1,911,675	117	\$16,366	\$14,049
2014 Deviation ^a	+12%		+11%	+3%

^a Percentage deviation from 10-year average.

Table 5.–Harvest of salmon in the Yakutat Area set gillnet fishery by fishing area, 2014.

Area	Chinook	Sockeye	Coho	Pink	Chum	Total
Alsek	1,074	33,668	3	0	12	34,757
East	2	3,069	24	14	212	3,321
Akwe	19	1,726	2,201	291	66	4,303
Italio	Closed					
Middle Italio	Closed					
Old Italio	Closed					
Dangerous	1	3,808	2	8	0	3,819
Situk	27	42,782	121,411	15,788	125	180,133
Lost	Closed					
Yakutat Bay	266	29,670	719	4,625	201	35,481
Manby Shore	14	1,712	4	7	5	1,742
Manby Stream	Not Fished					
Spoon	Not Fished					
Sudden	Not Fished					
Esker	Not Fished					
Yahtse	Not Fished					
Yana	Not Fished					
Jetty Creek	Not Fished					
Big River	Not Fished					
Kaliakh	Not Fished					
Tsiu	0	0	37,613	0	0	37,613
Seal River	Not Fished					
Tashalich	Not Fished					
Kiklukh	Not Fished					
Totals	1,414	116,424	161,977	20,733	621	301,169

Table 6.–Harvest of salmon in the Alsek River set gillnet fishery by fishing period, 2014.

Week	Ending Date	Boats	Chinook	Sockeye	Coho	Pink	Chum	Total	Days
23	7-Jun	14	363	2,517	0	0	0	2,880	2.0
24	14-Jun	14	320	3,193	0	0	0	3,513	2.0
25	21-Jun	13	312	6,962	0	0	0	7,274	3.0
26	28-Jun	14	48	1,371	0	0	0	1,419	1.0
27	5-Jul	14	27	6,076	0	0	0	6,103	3.0
28	12-Jul	10	0	1,036	0	0	0	1,036	1.0
29	19-Jul	8	3	1,157	0	0	0	1,160	1.0
30	26-Jul	10	1	6,967	0	0	0	6,968	3.0
31	2-Aug	10	0	4,145	0	0	0	4,145	3.0
32	9-Aug	7	0	241	3	0	12	256	1.0
33	16-Aug	a	a	a	a	a	a	a	a
34-41	23-Aug-11-Oct	Not Fished							
Totals		15	1,074	33,668	3	0	12	34,757	47.0

^a With fewer than 3 permits, all harvest figures are confidential.

Table 7.–Harvest of salmon in the Alsek River set gillnet fishery, 2014 and 5-year harvest comparison.

Year	Boats	Chinook	Sockeye	Coho	Pink	Chum	Total	Days
2009	14	602	12,906	3,454	0	20	16,982	38.0
2010	19	273	12,668	1,884	0	9	16,498	17.0
2011	18	546	24,169	1,614	0	11	26,358	59.0
2012	16	510	18,217	536	0	1	19,264	20.0
2013	15	469	7,517	17	0	5	8,008	40.0
2014	15	1,074	33,668	3	0	12	34,757	47.0
2009–2013 Average	16	480	15,095	1,501	0	9	17,422	34.8
2014 Deviation ^a	-6%	+124%	+123%	-100%	0%	33%	+100%	+35%

^a Percentage deviation from 5-year average.

Table 8.–Klukshu River Weir escapement, 1976–2014.

Year	Chinook ^a	Sockeye ^b	Coho
1976	1,278	11,691	1,572
1977	3,144	26,791	2,758
1978	2,976	26,867	30
1979	4,405	12,308	175
1980	2,637	11,739	704
1981	2,113	20,323	1,170
1982	2,369	33,699	189
1983	2,537	20,492	303
1984	1,672	12,727	1,402
1985	1,458	18,620	350
1986	2,708	24,880	62
1987	2,616	10,504	202
1988	2,037	9,341	2,774
1989	2,456	23,542	2,219
1990	1,915	25,995	315
1991	2,489	18,977	8,540
1992	1,366	20,215	1,145
1993	3,302	16,740	788
1994	3,735	15,038	1,232
1995	5,678	22,202	3,650
1996	3,602	8,317	3,465
1997	2,757	11,012	307
1998	1,347	13,580	1,961
1999	2,190	5,069	2,371
2000	1,365	5,551	4,832
2001	1,825	10,290	748
2002	2,240	25,711	9,921
2003	1,671	32,120	3,689
2004	2,525	15,348	750
2005	1,070	3,373	683
2006	568	13,455	420
2007	677	8,956	300
2008	436	2,731	4,275
2009	1,568	5,731	424
2010	2,357	18,936	2,365
2011	1,670	18,960	2,119
2012	665	17,267	572
2013	1,261	3,902	7,322
2014	842	12,377	341
2004–2013 average	1,280	10,866	1,923

^a Chinook salmon escapement goal range is 800 to 1,200 fish.

^b Sockeye salmon escapement goal range is 7,500 to 11,000 fish.

^c Coho numbers are an index; weir is removed before run is over.

Table 9.–Harvest of salmon in the East River set gillnet fishery by fishing period, 2014.

Week	Ending Date	Boats	Chinook	Sockeye	Coho	Pink	Chum	Total	Days
28-29	19-Jul	3	0	253	0	0	0	253	2.0
30	26-Jul	3	0	353	0	0	0	353	1.0
31	2-Aug	4	1	764	0	1	17	783	1.0
32	9-Aug	7	1	1,577	8	13	153	1,752	3.0
33	16-Aug	5	0	93	8	0	27	128	3.0
35	30-Aug	a	a	a	a	a	a	a	3.0
34, 36-41	11-Oct	Not Fished							18.0
Totals		10	2	3,069	24	14	212	3,321	34.0

^a With fewer than 3 permits, all harvest figures are confidential.

Table 10.–Harvest of salmon in the East River set gillnet fishery, 2014, and 5-year harvest comparison.

Year	Boats	Chinook	Sockeye	Coho	Pink	Chum	Total	Days
2009	22	10	7,388	1,042	4	275	8,719	33.0
2010	5	0	103	680	0	214	997	17.0
2011	17	0	14,867	99	0	330	15,390	39.0
2012	17	5	12,124	78	4	1,223	13,434	27.0
2013	13	7	18,474	72	0	785	19,338	16.0
2014	10	2	3,069	24	14	212	3,321	34.0
2009–2013 Average	15	4	10,591	394	2	565	11,576	26.4
2014 Deviation ^a	-33%	-50%	-71%	-94%	-600%	-62%	-71%	+28%

^a Percentage deviation from 5-year average.

Table 11.–Harvest of salmon in the Akwe River set gillnet fishery, 2014, and 5-year harvest comparison.

Year	Boats	Chinook	Sockeye	Coho	Pink	Chum	Total	Days
2009	5	90	7,251	2,270	56	15	9,682	32.0
2010	7	43	6,080	6,351	30	255	12,759	34.0
2011	7	178	21,360	1,639	225	24	23,426	43.0
2012	5	36	5,888	1,187	564	381	8,056	39.0
2013	3	76	15,917	759	1,514	123	18,389	40.0
2014	6	19	1,726	2,201	291	66	4,303	35.0
2009–2013 Average	5	85	11,299	2,441	478	160	14,462	38.0
2014 Deviation ^a	+20%	-78%	-85%	-10%	-39%	-59%	-70%	-8.0%

^a Percentage deviation from 5-year average.

Table 12.–Harvest of salmon in the Dangerous River set gillnet fishery, 2014, and 5-year harvest comparison.

Year	Boats	Chinook	Sockeye	Coho	Pink	Chum	Total	Days
2009	22	44	8,747	256	498	31	9,576	55.0
2010	3	2	3,997	4	1	0	4,004	62.5
2011	5	9	4,114	6	0	0	4,129	51.0
2012	6	0	5,814	30	104	5	5,953	38.0
2013	3	2	7,046	0	3	1	7,052	21.5
2014	5	1	3,808	2	8	0	3,819	54.0
2009–2013 Average	8	11	5,944	59	121	7	6,143	45.6
2014 Deviation ^a	-37%	-91%	-36%	-97%	-93%	-100%	-38%	+18%

^a Percentage deviation from 5-year average.

Table 13.–Harvest of salmon in the Situk-Ahrnklin Inlet set gillnet fishery by fishing period, 2014.

Week	Ending Date	Boats	Chinook	Sockeye	Coho	Pink	Chum	Total	Days
25	21-Jun	45	2	4,781	1	0	0	4,784	2.5
26	28-Jun	45	4	4,354	1	0	0	4,359	2.5
27	5-Jul	44	11	7,125	5	3	5	7,149	2.5
28	12-Jul	42	7	3,776	3	16	5	3,807	2.5
29	19-Jul	46	2	6,652	3	273	5	6,935	2.5
30	26-Jul	49	0	6,353	13	2,002	25	8,393	2.5
31	2-Aug	36	12	4,263	226	6,270	31	10,802	4.5
32	9-Aug	33	0	2,308	1,130	3,022	19	6,479	4.0
33	16-Aug	41	0	1,057	1,961	1,150	4	4,172	3.0
34	23-Aug	39	0	1,398	4,758	2,435	5	8,596	4.0
35	30-Aug	51	0	632	14,026	617	11	15,286	3.0
36	6-Sep	58	0	73	33,705	0	10	33,788	4.0
37	13-Sep	61	0	7	20,439	0	2	20,448	5.0
38	20-Sep	54	0	1	26,280	0	2	26,283	4.0
39	27-Sep	50	0	0	9,550	0	1	9,551	3.0
40	4-Oct	42	0	2	8,768	0	0	8,770	4.0
41	11-Oct	12	0	0	542	0	0	542	4.0
Total		83	38	42,771	121,411	15,788	125	180,133	57.5

Table 14.–Harvest of salmon in the Situk-Ahrnklin Inlet set gillnet fishery, 2014 and 5-year harvest comparison.

Year	Boats	Chinook	Sockeye	Coho	Pink	Chum	Total	Days
2009	84	307	49,016	69,978	66,640	147	186,088	70.0
2010	85	50	72,185	70,727	143,234	310	286,506	58.0
2011	85	22	65,661	79,911	142,061	307	287,962	68.5
2012	71	89	53,168	48,328	21,395	254	123,234	44.5
2013	74	314	88,751	106,873	58,742	317	254,997	73.0
2014	83	38	42,771	121,411	15,788	125	180,133	57.5
2009–2013 Average	80	156	65,756	75,163	86,414	267	227,757	62.8
2014 Deviation ^a	+4%	-76%	-35%	+62%	-82%	-53%	-21%	-8%

^a Percentage deviation from 5-year average.

Table 15.—Exvessel value of Situk-Ahrnklin set gillnet fishery relative to the total Yakutat Area exvessel set gillnet fishery, 1975–2014.

Year	Yakutat Setnet Income (USD)	Situk Setnet Income (USD)	Percent Value of Situk
1975	713,860	256,760	36%
1976	1,214,550	485,680	40%
1977	2,065,055	890,630	43%
1978	2,669,791	767,690	29%
1979	3,239,000	715,280	22%
1980	1,929,752	419,070	22%
1981	2,333,300	612,050	26%
1982	2,084,140	372,000	18%
1983	1,355,470	205,750	15%
1984	2,375,790	575,120	24%
1985	3,010,580	524,560	17%
1986	1,981,807	180,677	9%
1987	5,077,589	1,248,984	25%
1988	8,944,228	2,601,441	29%
1989	4,174,510	1,244,788	30%
1990	4,493,681	1,189,260	26%
1991	2,248,558	1,183,752	53%
1992	5,238,058	2,063,143	39%
1993	2,916,782	1,192,148	41%
1994	3,331,851	1,686,803	51%
1995	2,968,274	1,716,842	58%
1996	2,375,047	1,351,005	57%
1997	2,975,854	1,687,084	57%
1998	1,350,752	652,129	48%
1999	1,960,794	1,097,412	56%
2000	1,487,207	740,165	50%
2001	1,130,969	705,325	62%
2002	745,218	601,704	80%
2003	1,135,551	782,143	69%
2004	1,606,082	1,156,074	72%
2005	911,193	488,192	54%
2006	1,695,830	889,519	52%
2007	2,479,100	911,724	37%
2008	1,693,845	1,092,913	64%
2009	1,641,423	858,378	52%
2010	2,185,611	1,372,001	63%
2011	2,382,763	1,305,724	55%
2012	1,496,399	772,554	52%
2013	3,025,915	1,933,110	64%
2014	2,141,760	1,270,036	59%
2004–2013 Average	1,911,675	1,078,019	57%
2014 Deviation ^a	+12%	+18%	+4%

^a Percentage deviation from 10-year average.

Table 16.—Dollar value of salmon harvest in the Situk-Ahrnklin set gillnet fishery, 1975–2014.

Year	Chinook (USD)	Sockeye (USD)	Coho (USD)	Pink (USD)	Chum (USD)	Total (USD)
1975	7,000	128,000	114,560	7,000	4	256,760
1976	24,000	345,300	108,000	8,300	80	485,680
1977	21,000	588,560	255,530	25,230	310	890,630
1978	10,000	333,150	417,270	7,140	126	767,690
1979	29,560	430,350	223,950	31,200	220	715,280
1980	22,540	155,130	218,190	23,100	106	419,070
1981	25,000	237,710	308,270	40,440	625	612,050
1982	5,610	170,940	191,240	3,800	410	372,000
1983	4,830	101,000	96,300	3,300	315	205,750
1984	12,310	50,740	498,530	10,640	2,400	575,120
1985	11,330	122,770	385,000	4,750	710	524,560
1986	3,276	59,771	116,648	688	294	180,677
1987	23,908	755,662	454,035	9,682	5,394	1,248,984
1988	10,350	1,018,060	1,522,176	40,223	10,632	2,601,441
1989	No Sale	899,505	283,090	58,445	3,748	1,244,788
1990	No Sale	816,615	352,937	18,638	1,070	1,189,260
1991	12,071	651,684	518,138	1,399	460	1,183,752
1992	29,404	929,241	1,093,096	9,816	1,586	2,063,143
1993	11,553	503,262	669,648	6,479	1,206	1,192,148
1994	27,336	309,766	1,342,174	7,102	425	1,686,803
1995	168,055	432,684	1,078,470	36,913	720	1,716,842
1996	58,024	578,758	703,278	10,342	603	1,351,005
1997	31,317	166,254	1,436,891	52,282	340	1,687,084
1998	24,845	196,850	390,977	39,163	93	652,129
1999	81,060	488,915	515,785	10,738	474	1,096,972
2000	28,905	222,598	464,086	22,852	584	740,165
2001	17,179	241,597	433,935	12,427	187	705,325
2002	4,832	180,146	413,938	2,751	38	601,704
2003	27,850	441,995	293,676	18,885	249	782,143
2004	22,693	165,665	963,105	3,400	1,211	1,156,074
2005	0	207,988	252,553	27,064	587	488,192
2006	20	432,874	411,629	44,637	386	889,519
2007	0	523,214	336,002	51,167	1,211	911,594
2008	0	87,572	949,730	55,204	407	1,092,913
2009	2,022	328,357	521,304	6,306	387	858,376
2010	173	645,752	544,028	180,304	1,744	1,372,001
2011	62	540,253	579,919	184,039	1,452	1,305,724
2012	0	373,835	372,174	25,195	1,350	772,554
2013	10,520	902,793	954,355	60,821	1,373	1,933,110
2014	0	384,644	864,835	20,007	550	1,270,036
2004–2013 Average	3,549	420,830	588,480	63,814	1,011	1,078,006
2014 Deviation ^a	-100%	-9%	47%	-69%	-46%	18%

^a Percentage deviation from 10-year average.

Table 17.—Situk Weir escapement counts, 1988–2014.

Year	Dates of Operation	Chinook ^a	Sockeye ^b	Coho ^c	Pink ^d	Chum
1988	6/7–8/21	885	46,404	1,694	78,754	228
1989	5/31–8/17	637	84,383	0	288,246	0
1990	6/1–7/28	1,274	61,375	0	0	0
1991	6/10–7/27	1,613	67,737	0	4,168	3
1992	4/18–8/5	1,985	63,877	0	29,278	0
1993	6/10–8/5	4,091	62,110	0	16,285	0
1994	5/21–8/4	4,416	72,474	4	79,055	4
1995	5/10–8/3	8,231	42,463	4	66,273	17
1996	5/6–8/6	4,151	61,269	65	157,012	15
1997	5/7–8/8	5,001	42,051	18	466,267	35
1998	5/3–8/5	5,329	50,546	8	97,392	0
1999	5/9–8/6	2,786	61,544	2	27,586	0
2000	5/10–8/8	3,091	41,544	189	332,510	53
2001	5/20–8/8	696	60,330	20	121,267	13
2002	5/10–8/8	1,024	68,743	40	98,190	22
2003	5/8–8/8	2,615	89,720	1	375,333	12
2004	5/8–8/9	798	42,544	184	145,914	111
2005	5/8–7/31	613	66,476	137	279,648	0
2006	5/11–8/13	749	90,383	320	115,079	283
2007	5/11–8/15	677	61,799	39	224,024	18
2008	5/11–7/23	414	22,540	0	1,275	6
2009	5/12–8/5	904	83,959	10	62,287	2
2010	5/11–8/5	170	47,865	2706	84,594	1
2011	5/9–8/7	240	89,993	46	169,908	112
2012	6/1–8/7	321	62,467	17	33,620	11
2013	6/1–8/4	912	118,635	31	133,585	3
2014	6/9–8/6	475	102,308	13	28,284	20
2009–2013 Average		509	80,584	562	96,799	26
2014 Deviation ^e		-7%	+27%	-98%	-71%	-23%

Note: In 1992 and from 1994 to the present, the weir has been operated by the Division of Sport Fish in May and early June to count emigrant steelhead.

^a Chinook salmon weir counts are for large, ocean-age-3 or older fish. The Chinook salmon escapement goal range of 450–1,050 fish is for large fish.

^b Sockeye salmon escapement goal range is 30,000–70,000 fish.

^c The Situk weir is not operated through the end of the coho salmon return and is not a useful measure of escapement for this species.

^d Pink salmon escapement goal (SEG) is 33,000 fish passed through the weir by August 5.

^e Percentage deviation from 10-year average.

Table 18.–Harvest of salmon in the Yakutat Bay set gillnet fishery by fishing period, 2014.

Week	Ending Date	Boats	Chinook	Sockeye	Coho	Pink	Chum	Total	Days
24	14-Jun	31	77	6,439	3	0	32	6,551	2.5
25	21-Jun	26	37	2,352	1	0	10	2,400	2.5
26	28-Jun	27	35	3,746	1	0	27	3,809	2.5
27	5-Jul	29	36	4,005	6	7	14	4,068	2.5
28	12-Jul	27	33	6,056	20	20	21	6,150	2.5
29	19-Jul	24	30	2,559	33	111	8	2,741	2.5
30	26-Jul	19	7	1,157	7	304	16	1,491	2.5
31	2-Aug	18	2	2,176	45	1,133	23	3,379	4.5
32	9-Aug	11	0	675	60	1,139	25	1,899	4.0
33	16-Aug	12	2	250	131	1,348	8	1,739	3.0
34	23-Aug	4	2	178	127	484	9	800	4.0
35	30-Aug	4	2	66	122	66	7	263	3.0
36&39	27-Sep	3	3	11	163	13	1	191	7.0
37,38,40,41	11-Oct	Not fished							16.0
Totals		41	266	29,670	719	4,625	201	35,481	59.0

Table 19.–Harvest of salmon in the Yakutat Bay set gillnet fishery, 2014, and 5-year harvest comparison.

Year	Boats	Chinook	Sockeye	Coho	Pink	Chum	Total	Days
2009	56	380	15,367	3,246	9,258	348	28,599	60.5
2010	46	92	15,092	1,052	17,200	377	33,813	54.5
2011	50	257	27,612	6,646	62,774	215	97,504	67.0
2012	39	247	23,836	2,672	5,275	280	32,310	48.0
2013	36	492	26,837	5,362	6,145	192	39,028	40.0
2014	41	266	29,670	719	4,625	201	35,481	59.0
2009–2013 Average	45	294	21,749	3,796	20,130	282	46,251	54.0
2014 Deviation ^a	-9%	-10%	+36%	-81%	-77%	-29%	-23%	+9%

^a Percentage deviation from 5-year average.

Table 20.—Harvest of salmon in the Manby Shore Ocean set gillnet fishery, 2014, and 5-year harvest comparison.

Year	Boats	Chinook	Sockeye	Coho	Pink	Chum	Total	Days
2009	12	100	2,830	60	378	33	3,401	48.0
2010	13	33	8,938	52	5	71	9,099	48.0
2011	15	111	9,203	503	29	11	9,857	56.5
2012	7	55	5,084	25	1	12	5,177	44.5
2013	9	41	3,600	72	9	5	3,727	21.0
2014	5	14	1,712	4	7	5	1,742	55.5
2009–2013 Average	11	68	5,931	142	84	26	6,252	44.0
2014 Deviation ^a	-55%	-79%	-71%	-97%	-92%	-81%	-72%	26%

^a Percentage deviation from 5-year average.

Table 21.—Harvest of salmon in the Tsiu River set gillnet fishery, 2014, and 5-year harvest comparison.

Year	Boats	Chinook	Sockeye	Coho	Pink	Chum	Total	Days
2009	10	0	74	43,723	121	2	43,920	23.2
2010	19	6	3	77,780	0	3	77,792	20.0
2011	21	0	16	34,745	171	2	34,934	34.0
2012	13	0	0	45,821	0	6	45,827	12.0
2013	13	0	0	44,887	0	0	44,887	23.0
2014	9	0	0	37,613	0	0	37,613	20.0
2009–2013 Average	15	1	19	49,391	58	3	49,472	22.0
2014 Deviation ^a	-40%	-100%	-100%	-24%	-100%	-100%	-24%	-9%

Note: For 5-year comparison, days are for coho salmon season only.

^a Percentage deviation from 5-year average.

Figure 1.—Yakutat Area map, showing statistical reporting areas.